

opening in each (circuit board) and then applying an adhesive to join the boards." However, this statement by the Examiner relates to the present invention as claimed, not the process proposed by the Examiner in Paper No. 6. Thus, Applicants respectfully submit that the Examiner has yet to describe another proposed process for making the claimed product. Accordingly, Applicants reassert their traversal of the Election/Restriction Requirement.

II. THE OBJECTION TO THE DRAWINGS

On page 3 of the Office Action, the Examiner asserts that the Figures are improperly cross-hatched. However, it is unclear as to what the Examiner is referring to as none of the Figures submitted on April 9, 2001, contain cross-hatching.

On page 3 of the Office Action, the Examiner asserts that Figure 1A should be designated by a legend such as "Prior Art." An amendment to Figure 1A has been proposed in the attached Request for Approval of Drawing Amendments which addresses this issue.

On page 3 of the Office Action, the Examiner asserts that reference number 10 is not in Figures 1 and 1A. An amendment to Figure 1 has been proposed in the attached Request for Approval of Drawing Amendments which addresses this issue. No amendments

to Figure 1A have been proposed as reference number 10 should not be included in Figure 1A.

On page 3 of the Office Action, the Examiner asserts that reference numbers 100 and 102 are not in Figures 6 and 7. Amendments to Figures 6 and 7 have been proposed in the attached Request for Approval of Drawing Amendments which address this issue.

On page 3 of the Office Action, the Examiner asserts that reference numbers 27a, 27b, and 28b in Figure 3A are not mentioned in the specification. Regarding reference numbers 27a and 27b, these reference numbers logically flow from reference number 27 in the specification and in Figures 2A and 2B. An amendment to Figure 3A has been proposed in the attached Request for Approval of Drawing Amendments which address the issue with respect to reference number 28b (i.e., it should be changed to 24b).

On page 3 of the Office Action, the Examiner asserts that reference numbers 27a and 27b in Figure 3C are not mentioned in the specification. Reference numbers 27a and 27b logically flow from reference number 27 in the specification and in Figures 2A and 2B.

On page 3 of the Office Action, the Examiner asserts that reference numbers 46a, 47a, 46b, 47b, and 50a in Figure 5A are

not mentioned in the specification. Reference numbers 46a, 47a, 46b, and 47b logically flow from reference numbers 46 and 47 in Figures 4A and 4B. Reference number 50a logically flows from reference number 50 in the specification.

On page 3 of the Office Action, the Examiner asserts that reference numbers 200, 202, 106a, and 106d in Figure 6 are not mentioned in the specification. An amendment to Figure 6 has been proposed in the attached Request for Approval of Drawing Amendments which address the issue with respect to reference numbers 200, 202, and 106d (i.e., they should be changed to 100, 102, and 106a, respectively). Reference number 106a is mentioned in the specification.

On page 4 of the Office Action, the Examiner asserts that reference number 25 in Figures 2A and 2B is used to designate both a "copper ground plane" and "a lower surface of the PWB 11." The specification has been amended to address this issue (i.e., 25 should be changed to 23 in the specification).

III. THE INDEFINITENESS REJECTION OF CLAIMS 19, 21, AND 22

On page 4 of the Office Action, claims 19, 21, and 22 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly

claim the invention. This rejection is hereby respectfully traversed with partial amendment.

Claim 16 has been amended to change its dependency from claim 15 to claim 13.

Claims 19 and 20 have been amended to change the term "signal conductor" to "signal conducting means."

Regarding claim 21, Applicants respectfully submit that there is no omission of essential structural cooperative relationships of elements. The language of claim 21 follows that of claim 13, which the Examiner has deemed to be allowable. Thus, it is respectfully submitted that claim 21 is also allowable.

Regarding claim 22, Applicants are unsure as to the Examiner's grounds of rejection as none are provided in the Office Action. Regardless, Applicants respectfully submit that claims 22, 24, and 29 are fully compliant with 35 U.S.C. § 112, second paragraph.

In view of the foregoing, it is respectfully submitted that the indefiniteness rejection of claims 19, 21, and 22 is not proper at this time, and the withdrawal of such rejection is respectfully requested.

IV. CONCLUSION

In view of the foregoing, it is respectfully submitted that the present application is in condition for allowance, and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed telephone number, in order to expedite resolution of any issues and to expedite passage of the present application to issue, if any comments, questions, or suggestions arise in connection with the present application.

To the extent necessary, a petition for an extension of time under 37 CFR § 1.136 is hereby made.

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Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-0206, and please credit any excess fees to the same deposit account.

Respectfully submitted,

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APPENDIX A

16 (Amended). The system as defined in claim [15]13, wherein the first signal conducting means and the second signal conducting means each comprise a single conductor.

19 (Twice Amended). The system as defined in claim 18, wherein the first signal [conductor] conducting means and the second signal [conductor] conducting means are formed on respective signal layers of the first circuit board and the second circuit board, wherein the signal layers are disposed beneath the ground plane layers in the first circuit board and the second circuit board.

20 (Twice Amended). The system as defined in claim 13, wherein a high speed signal carrying data at a rate on the order of 1 Gb/s and above propagates from the first signal [conductor] conducting means to the second signal [conductor] conducting means via the electrically conductive material.

APPENDIX B

13 (Amended). A system for electrically interconnecting circuit boards, the system comprising:

a first circuit board having a first signal conducting means formed therein, the first signal conducting means being shielded by a first electrically conductive shield, the first electrically conductive shield having a first opening formed therein so as to expose the first signal conducting means in the first circuit board;

a second circuit board having a second signal conducting means formed therein, the second signal conducting means being shielded by a second electrically conductive shield, the second electrically conductive shield having a second opening formed therein so as to expose the second signal conducting means in the second circuit board; and

an electrically conductive material surrounding at least one of the first and second openings and within at least one of the first and second openings;

wherein the first circuit board and the second circuit board are electrically interconnected by the electrically conductive material such that the first opening and the second opening are aligned and the first signal conducting means is electrically interconnected to the second signal conducting

means.

14 (Amended). The system as defined in claim 13, wherein the electrically conductive material comprises an electrically conductive adhesive, solder paste, or interposer/elastomer device disposed within a first via located within the first opening and within a second via located within the second opening.

15. The system as defined in claim 13, wherein the first signal conducting means comprises a pair of signal conductors and the second signal conducting means comprises a pair of signal conductors.

16 (Amended). The system as defined in claim 13, wherein the first signal conducting means and the second signal conducting means each comprise a single conductor.

17. The system as defined in claim 13, wherein the first circuit board and the second circuit board are multilayer circuit boards, wherein the first electrically conductive shield and the second electrically conductive shield are respective electrically conductive layers of the first circuit board and

the second circuit board.

18. The system as defined in claim 13, wherein the first electrically conductive shield and the second electrically conductive shield are formed by respective ground plane layers of the first circuit board and the second circuit board.

19 (Twice Amended). The system as defined in claim 18, wherein the first signal conducting means and the second signal conducting means are formed on respective signal layers of the first circuit board and the second circuit board, wherein the signal layers are disposed beneath the ground plane layers in the first circuit board and the second circuit board.

20 (Twice Amended). The system as defined in claim 13, wherein a high speed signal carrying data at a rate on the order of 1 Gb/s and above propagates from the first signal conducting means to the second signal conducting means via the electrically conductive material.

21 (Amended). The system as defined in claim 13,
wherein the first circuit board has a third signal conducting means formed therein, wherein the third signal

conducting means is shielded by a third electrically conductive shield, wherein a third opening is formed in the third electrically conductive shield so as to expose the third signal conducting means in the first circuit board;

wherein the second circuit board has a fourth signal conducting means formed therein, wherein the fourth signal conducting means is shielded by a fourth electrically conductive shield, wherein a fourth opening is formed in the fourth electrically conductive shield so as to expose the fourth signal conducting means in the second circuit board;

wherein an electrically conductive material is applied around at least one of the third and fourth openings and within at least one of the third and fourth openings; and

wherein the first circuit board and the second circuit board are positioned such that the third opening and the fourth opening are aligned and the third signal conducting means is electrically connected to the fourth signal conducting means.

22. The system as defined in claim 21, wherein the third electrically conductive shield is electrically connected to the first electrically conductive shield, wherein the fourth electrically conductive shield is electrically connected to the second electrically conductive shield.

23. The system as defined in claim 13, wherein the first circuit board is a motherboard, wherein the second circuit board is a daughterboard.

24 (Amended). The system as defined in claim 23, wherein the daughterboard is formed at least partially of flexible material so as to allow angular mating with the motherboard.

28 (Amended). A system for electrically interconnecting circuit boards, the system comprising:

a first circuit board having a first signal conducting means formed therein, the first signal conducting means being shielded by a first electrically conductive shield, the first electrically conductive shield having a first opening formed therein so as to expose the first signal conducting means in the first circuit board; and

a second circuit board having a second signal conducting means formed therein; and

an electrically conductive material surrounding the first opening and applied within the first opening,

wherein the first circuit board and the second circuit board are positioned such that the first signal conducting means

and the second signal conducting means are aligned through the opening and the first signal conducting means is electrically interconnected to the second signal conducting means.

29. The system as defined in claim 28, wherein the first signal conducting means comprises a first pair of conductors and the second signal conducting means comprises a second pair of conductors and each conductor of the first pair is connected with a conductor of the second pair for transmission of two signals between the first pair and the second pair.

30. The system as defined in claim 28, wherein the first signal conducting means comprises a single conductor and the second signal conducting means comprises a single conductor.